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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,868	08/27/2003	Akinori Horiuchi	1232-5128	4901
27123	7590	06/13/2005	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			HAUPT, KRISTY A	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	<b>Application No.</b> 10/648,868	<b>Applicant(s)</b> HORIUCHI ET AL.	
	<b>Examiner</b> Kristy A. Haupt	<b>Art Unit</b> 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-7 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Priority*

The Examiner acknowledges the Applicant's request for priority under 35 USC § 119 for Application Number 10/648,868 filed August 27, 2003.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4, 5, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tachibana US 5,488,407 in view of Ebert et al. US 6,126,160.

With respect to claims 1, 2, 4, 5, 6 and 7, Tachibana teaches an inkjet recording apparatus, recording method and computer program comprising:

With respect to claims 1, 4 and 6:

- An ink jet recording apparatus (Column 16, Lines 19-20) for forming an image on a recording medium (Column 1, Lines 44-45) supplied from a feed sheet unit and transferred in a predetermined transfer direction (Column 3, Lines 36-39 and Figure 3 where recording medium, #16 is transferred in the sub-scan direction, #A) by jetting ink from a recording

head made to move in the main scanning direction thereof (Column 3, Lines 25-34)

- A recording medium detection unit for detecting a first recording medium whereon formation of an image is in progress, provided on an upstream side of the recording head in the transfer direction (Column 3, Lines 40-44 and Figure 3 where the recording sheet sensor, #13 is located on the upstream side of the recording head, #11)
- A remaining recording time measuring unit for measuring time from said point until the formation of the image on said first recording medium is completed (Column 15, Lines 20-25 where the countdown until the recording is completed starts at the PE handler. The PE handler represents the status of the PE sensor (Column 14, Lines 52-53) which detects the leading and trailing ends of the recording medium (Column 8, Lines 45-49)
- A control unit for letting said feed sheet unit start a feed of a second recording medium when the length measured by said remaining length-to-rear end measuring unit is found to be less than predetermined reference length, and the time measured by said remaining recording time measuring unit is found to be less than predetermined reference time (Column 9, Lines 24-36)

With respect to claims 2, 5 and 7:

- An ink jet recording apparatus further comprising a next page recording determining unit for determining whether formation of an image on said second recording medium is necessary or not when said second recording medium for the next page is supplied from said feed sheet unit following said first recording medium (Column 4, Lines 59-66), wherein said control unit operates for letting the feed of said second recording medium start when it is found that the image needs to be formed on said second recording medium by said next page recording determining unit (Column 4, Lines 66-67)

With respect to claim 6:

- A computer program product for executing an ink jet recording method ((Column 2, Lines 64-67) where the facsimile apparatus uses an ink jet recording system (Column 16, Lines 19-20))

Tachibana fails to explicitly teach:

With respect to claims 1, 4, 5, 6 and 7:

- A remaining length-to-rear end measuring unit for measuring length from a point at which presence of said first recording medium is detected by said

recording medium detection unit to a rear end of said first recording medium

- A control unit for letting said feed sheet unit start a feed of a second recording medium when the length measured by said remaining length-to-rear end measuring unit is found to be less than predetermined reference length

However, Ebert et al. teaches:

With respect to claims 1, 4, 5, 6 and 7:

- A remaining length-to-rear end measuring unit for measuring length from a point at which presence of said first recording medium is detected by said recording medium detection unit to a rear end of said first recording medium (Column 1, Lines 62-64)
- A control unit for letting said feed sheet unit start a feed of a second recording medium when the length measured by said remaining length-to-rear end measuring unit is found to be less than predetermined reference length (Column 1, Lines 50-58)

Therefore, it would have been obvious to one of ordinary skill in the art to modify the ink jet recording apparatus of Tachibana to include the unit for measuring the length of the first recording medium to increase sheet or document throughput

rate and decrease the length of a gap between documents or sheets fed into the apparatus (Column 1, Lines 18-21)

***Allowable Subject Matter***

3. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record fails to provide sufficient teaching or motivation to one of ordinary skill in the ink jet art to provide the additionally recited features of this claim in the combination as claimed, "wherein said predetermined reference time is time from a point at which a feed of a sheet is started by said feed sheet unit until said second recording medium starts to move".

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Contact Information***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristy A. Haupt whose telephone number is (571) 272-8545. The examiner can normally be reached on M-F 7:00-3:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KAH



LAMSON NGUYEN  
PRIMARY EXAMINER  
06/08/05